

Translation

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PATENT COOPERATION TREATY

PCT/EP2003/013711



PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 2002P20039WO	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/EP2003/013711	International filing date (day/month/year) 04 December 2003 (04.12.2003)	Priority date (day/month/year) 19 December 2002 (19.12.2002)
International Patent Classification (IPC) or national classification and IPC F01D 9/04		
Applicant SIEMENS AKTIENGESELLSCHAFT		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 5 sheets, including this cover sheet.

☒ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 7 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 17 June 2004 (17.06.2004)	Date of completion of this report 01 April 2005 (01.04.2005)
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/EP2003/013711

## I. Basis of the report

### 1. With regard to the elements of the international application:\*

- ☐ the international application as originally filed
- ☒ the description:  
 pages \_\_\_\_\_, 3, 5-9 \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_ 1, 2, 2a, 4 \_\_\_\_\_, filed with the letter of \_\_\_\_\_ 18 March 2005 (18.03.2005)
- ☒ the claims:  
 pages \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_, as amended (together with any statement under Article 19  
 pages \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_ 1-9 \_\_\_\_\_, filed with the letter of \_\_\_\_\_ 18 March 2005 (18.03.2005)
- ☒ the drawings:  
 pages \_\_\_\_\_ 1/2-2/2 \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☐ the sequence listing part of the description:  
 pages \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_

### 2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item. These elements were available or furnished to this Authority in the following language \_\_\_\_\_ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

### 3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

### 4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets/fig \_\_\_\_\_

### 5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\*

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

\*\* Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/EP 03/13711

## V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

### 1. Statement

Novelty (N)	Claims	1 - 9	YES
	Claims		NO
Inventive step (IS)	Claims	1 - 9	YES
	Claims		NO
Industrial applicability (IA)	Claims	1 - 9	YES
	Claims		NO

### 2. Citations and explanations

#### 1. Relevant document

D1 : DE-A-606 029

#### 2. Claim 1 (device)

The subject matter of claim 1 is novel and inventive (PCT Article 33(2) and (3)).

D1 is the closest prior art. D1 discloses a manually detachable clamping device 14 (page 3, lines 5-20) for guide blades of a turbine (page 1, line 21).

The turbine according to claim 1 differs from the turbine of D1 in that the root or head of each guide blade can be fixed by means of a manually detachable clamping device that is accessible from the combustion chamber.

This feature is novel over the prior art.

The technical problem is that of facilitating the removal of a turbine guide blade in order to reduce down time for repair, inspection and/or maintenance work.

This problem is solved by the aforementioned distinguishing feature in a novel and, for a person skilled in the art, non-obvious way.

The prior art does not contain anything that would lead a person skilled in the art, proceeding from D1, to the turbine of claim 1.

The fact that each individual turbine blade is fixed in the turbine by means of a separate clamping device cannot be anticipated from D1. Furthermore, the turbine blades in D1 cannot be removed *individually* through the combustion chamber owing to the fact that they are fixed in the welded guide blade ring. The solution in claim 1 is therefore considered to be inventive.

3. Claim 9 (method)

The subject matter of claim 9 is novel and inventive (PCT Article 33(2) and (3)).

D1 discloses a method for installing and removing turbine guide blades from which the method of claim 9 differs in that the clamping device is reattached in a parked position.

This feature is novel over the prior art.

The technical problem is that of preventing the clamping device from accidentally falling out in order to reduce down time for repair, inspection and/or maintenance work.

This problem is solved by the aforementioned distinguishing feature.

The prior art does not contain anything that would lead a person skilled in the art, proceeding D1, to the method of claim 1. The method of claim 1 therefore involves an inventive step.

4. Dependent claims 2-8 (device claims)

These claims are novel and inventive because they each dependent on a novel and inventive claim.

5. Observations

5.1 Step d) in the method claim is vague owing to a grammatically incorrect phrase. The claim itself is therefore vague and unclear (PCT Article 6).

5.2 The description has not been brought into line with the amended claims.